

AMENDED CLAIMS

[filed in the International Office on 13th December 2004 (13.12.04),
original claims 1 – 24 replaced by amended claims 1 – 23]

1. System for analysing a sample to be examined comprising
 - a test field containing a reagent which on contact, interacts with an analyte contained in a sample resulting in an optically detectable change in the test field,
 - at least one light-conducting element having a first distal end which is arranged in the region of the test field and
 - a second proximal end into which light can be coupled such that light is conducted from the second end to the test field and is conducted away again from the test field by the same or another light-conducting element, and
 - a lancet which is at least partially surrounded by the light-conducting element having a lancet tip which is located in the region of the distal end and of the test field in such a manner that
 - the lancet tip extends beyond the distal end of the light guide and beyond the test field during a lancing process.
2. System as claimed in claim 1,
in which the lancet is movably guided within a hollow light-conducting fibre.
3. System for analysing a sample to be analysed comprising
 - a test field containing a reagent which on contact, interacts with an analyte contained in a sample resulting in an optically detectable change in the test field,
 - at least one light-conducting element having a first distal end which is permanently connected to the test field and
 - a second proximal end into which light can be coupled such that light is conducted from the second end to the test field and is conducted away again from the test field by the same or another light-conducting element, and

- a lancet having a lancet tip which is located in the region of the distal end and of the test field in such a manner that
 - the lancet tip extends beyond the distal end of the light guide and beyond the test field during a lancing process.
4. System as claimed in claim 3,
in which the reagent in the test field reacts essentially irreversibly with the analyte.
 5. System as claimed in claim 3 or 4,
which is suitable only for single use.
 6. System as claimed in claim 3,
in which the first distal end of the light-conducting element is reversibly positioned at the test field and can be again removed from the test field.
 7. System as claimed in claim 6,
in which the test field is positioned on a separate carrier and the carrier is movably guided below the light-conducting element.
 8. System as claimed in claim 1 or 6, which has a plurality of test fields.
 9. System as claimed in claim 1 or 8, which has a plurality of lancets.
 10. System as claimed in claim 3,
in which the light-conducting element is at least partially surrounded by the lancet.

11. System as claimed in claim 10,
in which the light-conducting element is arranged within a hollow lancet.
12. System as claimed in claim 3,
in which the lancet and the light-conducting element are arranged
concentrically relative to one another.
13. System as claimed in claim 3,
in which the lancet and the light-conducting element are arranged in direct
vicinity to one another in a plane perpendicular to the lancing direction.
14. System as claimed in claim 3,
in which the lancet tip is embedded in a sterile protection.
15. System as claimed in claim 3,
which is suitable for determining a glucose concentration from blood.
16. System as claimed in claim 3,
which can be optically contacted with an analytical unit of an analytical
instrument such that light is coupled into or out of the light-conducting
element.
17. System as claimed in claim 3,
which is used in a lancing device.
18. System as claimed in claim 17,
in which the lancing device comprises an analytical unit which is optically
contacted with the light-conducting element in such a manner that light can
be coupled into the light-conducting element and the light conducted away
from the test field can be detected by the analytical unit.

19. System as claimed in claim 17,
in which the lancing device can be coupled to an analytical unit such that light can be coupled into the light-conducting element and the light conducted away from the test field can be detected by the analytical unit.
20. System as claimed in claim 17,
in which the lancing device comprises a drive unit for the lancet.
21. System as claimed in claim 17 or 20,
in which the lancing device contains a drive unit for the light-conducting element.
22. System as claimed in claim 17 or 21,
in which the lancing device contains a drive unit for transporting the test element.
23. System as claimed in claim 17,
which is positioned in a magazine of the lancing device in which a plurality of systems is located.